

GAO

Report to the Secretary of Defense

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July 1991

DEFENSE MANAGEMENT

Stronger Oversight of Joint Service Imagery Processing System Needed



91-15358



United States
General Accounting Office
Washington, D.C. 20548

National Security and
International Affairs Division

B-238044

July 26, 1991

The Honorable Richard B. Cheney
The Secretary of Defense

Dear Mr. Secretary:

This report summarizes ^{the} our review of the Defense Department's management of the Joint Service Imagery Processing System (JSIPS). We focused specifically on whether (1) the JSIPS program had kept to original cost, schedule, and performance estimates; (2) user requirements had been fully considered in JSIPS design, development, and planned testing; (3) JSIPS program decisions had been appropriately coordinated with closely related imagery programs; and (4) the Department of Defense (DOD) had exercised adequate oversight of program activities.

Results in Brief

Cost, schedule, and performance estimates for JSIPS changed significantly after the original development contract was awarded in August 1987. A program funding shortfall of \$38 million resulted in a restructuring of the contract in 1988. The restructured contract increased overall development costs, stretched out the projected dates for delivery of the system, and voided the negotiated prices of production options in the original contract.

Design and development efforts in the JSIPS program have supported the needs of the individual services rather than joint operations requirements. The Office of the Secretary of Defense (OSD), which initiated the program, has not solicited the joint requirements of the theater commanders in chief, who are responsible for executing war-fighting plans and joint operations in their assigned geographical areas.

The design, development, test plans, and production schedules for JSIPS have not been adequately coordinated with closely related systems that will gather and transmit data for JSIPS and that are also under development.

Top-level DOD officials have not received adequate and independent information that would have allowed them to address the problems in the JSIPS program, including the funding shortfalls, the failure to emphasize joint requirements, and the poor coordination with related systems. There is no certainty under the current management structure, despite

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recent changes to improve oversight, that these problems will be addressed.

Background

JSIPS—a deployable, ground-based imagery receiving and processing system—will be at the heart of a complex and much larger system that collects data, processes it, and disseminates pictures and reports to battlefield commanders. Imagery sensors carried on board both national systems and tactical manned and unmanned aircraft will collect the data and transmit it to JSIPS, where it will be received, recorded, and processed.¹ In the JSIPS processing shelters, military personnel will analyze the data before forwarding pictures and reports to battlefield users equipped with image-receiving capability. ←

According to officials in the Office of the Secretary of Defense, OSD instituted the JSIPS program in 1986 to consolidate separate Army, Air Force, and Marine Corps imagery programs. In August 1987, the Air Force, which was designated the JSIPS executive agent, awarded a firm, fixed-price full-scale development contract that required delivery by fiscal year 1990 of three JSIPS units—one for each of the three participating services. The contract was valued at \$131.5 million for the three development units and included priced options for 37 JSIPS units totaling about \$709 million.

Cost, Schedule, and Performance Estimates Have Changed Significantly

With the establishment of JSIPS, the Army, Air Force, and Marine Corps discontinued their individual imagery programs, and representatives of the three services signed a memorandum agreeing to share all nonrecurring costs for commonly developed JSIPS items. However, JSIPS still competes with other related and non-related systems for funding within each of the three services. As a result, less than 2 years into development, the program was unable to meet its contract obligations because the Army and Marine Corps did not contribute their full shares of program costs or made funds available too late to meet the program obligations. In September 1989, the Air Force restructured the full-scale development contract to resolve, at least temporarily, the immediate funding shortfall.

The contract restructuring increased development costs by nearly \$55 million over the original contract price—from \$131.5 million to \$186.5 million. In addition, it reduced from three to two the number of

¹Details of national systems are classified.

JSIPS units to be delivered under full-scale development, delayed the planned delivery of the second JSIPS unit by 18 months, and voided the negotiated prices of production options in the original contract. Notwithstanding the restructuring, funding will continue to be unstable during full-scale development and, according to a program official, may be a major concern during production.

JSIPS Has Not Been Adequately Coordinated Among Services or With Related Programs

After more than 3 years into full-scale development, the JSIPS program continues to be guided by the requirements of the individual services rather than joint requirements. This has led to the development of JSIPS equipment designed to meet service-specific needs rather than joint operational needs.

The JSIPS program has neither a jointly approved requirements document nor a jointly approved concept of operations plan. OSD officials said these documents were not prepared because DOD intended that JSIPS be only a joint engineering development program, as opposed to a joint program with a single set of requirements and a single concept of operations. One OSD official told us that the individual services were reluctant to participate in a joint program and might leave the JSIPS program if joint requirements were emphasized too much.

OSD also has not required theater commanders in chief to provide input on JSIPS requirements to support joint operations. OSD officials said they accepted the services' needs to have JSIPS designed to meet their individual missions. However, under the Goldwater-Nichols DOD Reorganization Act and DOD policy, commanders in chief are responsible for executing war-fighting plans, to include joint operations, in their theaters.

In addition to the lack of emphasis on joint requirements, major design and program schedule issues among JSIPS and related systems have not been resolved because the services responsible have not adequately coordinated efforts. To receive imagery from tactical collection sources, JSIPS must be interoperable with the Advanced Tactical Air Reconnaissance System, the Medium-Range Unmanned Aerial Vehicle, and manned aircraft systems that are under development. However, according to DOD officials, OSD had not developed an integrated test plan and production schedule that would be binding on the individual services. An integrated plan and schedule would prevent the uncoordinated fielding of these mutually supporting systems.

JSIPS Lacks Adequate Management Oversight

The flow of adequate, independent information on the JSIPS program to the Defense Acquisition Executive, DOD's senior acquisition official, and other top-level DOD officials has been restricted because JSIPS has not been designated a major acquisition program and has not been subject to external audits and inspections. Such information is essential to effectively manage a program as technically complex as JSIPS.

Recent measures by the Defense Acquisition Executive to strengthen oversight of JSIPS do not provide sufficient assurance that the problems with the program will be adequately addressed. Prospects for addressing these problems could be enhanced if JSIPS were designated a major acquisition program subject to review by the Defense Acquisition Board. Because of their costs, development risks, joint requirements, or importance to U.S. defense, major acquisition programs under Board review are generally under stricter management controls by top-level DOD officials. JSIPS meets DOD criteria for designation as a major acquisition program.

Recommendations

We recommend you ensure that (1) JSIPS program funding is adequate and stable, (2) the requirements of the theater commanders in chief for joint operations are adequately considered in JSIPS development and acquisition decisions, and (3) JSIPS and interrelated programs are adequately planned and coordinated to ensure the combined systems are fully tested and concurrently available.

To overcome the services' reluctance to participate in the JSIPS program and to improve program management and oversight, we also recommend you designate JSIPS a major acquisition program subject to review by the Defense Acquisition Board.

Agency Comments and Our Evaluation

DOD agreed or partially agreed with our findings and recommendations concerning program funding, consideration of joint operation requirements of commanders in chief, and the coordination of JSIPS and interrelated programs.

DOD stated, however, that designating JSIPS a major acquisition program was not necessary. DOD believes the recently established Tactical Imagery Review Group, the new multiprogram baseline for JSIPS and related programs, quarterly Defense Acquisition Executive Summary sessions, the new DOD controlled joint test plan, and the recent reorganization within the Office of the Deputy Assistant Secretary of Defense

(Intelligence) will result in sufficient management oversight to meet our concerns.

The changes DOD has made could lead to improvement in management oversight of JSIPS and related programs. However, the services continue to control JSIPS program funding, requirements, and coordination procedures. Control by each service of its own funding priorities and system requirements led to the problems identified in our report. Thus, we continue to recommend that JSIPS be designated a major program subject to Defense Acquisition Board review.

Appendix I includes more detailed information about the JSIPS program, and DOD's detailed comments on a draft of our report are reprinted in appendix II.

Scope and Methodology

We discussed the JSIPS program with officials of OSD and the individual services at the Department of Defense; Air Force headquarters; the Air Force Tactical Air Command; the Army Space Program Office; and the Marine Corps Research, Development, and Acquisition Command. We visited the prime contractor's facilities for the JSIPS program and discussed acquisition and related technical issues with contractor officials. We also reviewed relevant service and contractor documents on the JSIPS program. We visited the Central Command and the Atlantic Command and discussed JSIPS with intelligence and communications officials.

We discussed the Advanced Tactical Air Reconnaissance System with program officials, visited the prime contractor, and reviewed program documentation. We also discussed the Medium-Range Unmanned Aerial Vehicle with program officials and reviewed program documents.

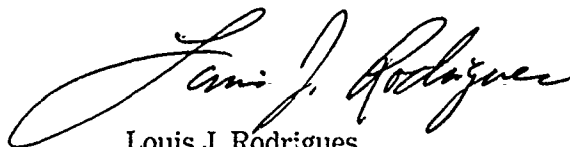
We performed our work from September 1989 through January 1991 in accordance with generally accepted government auditing standards.

As you know, the head of a federal agency is required under 31 USC 720 to submit a written statement on actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of this letter and to the Senate and House Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of this letter.

Copies of this report will be sent to appropriate congressional committees; the Secretaries of the Army, the Navy, and the Air Force; and the Director, Office of Management and Budget. We will also send copies to others on request.

Please contact me at (202) 275-4841 if you or your staff have any questions concerning this report. Major contributors are listed in appendix III.

Sincerely yours,

A handwritten signature in cursive script, reading "Louis J. Rodrigues". The signature is written in dark ink and is positioned above the printed name and title.

Louis J. Rodrigues
Director, Command, Control, Communications,
and Intelligence Issues

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Abbreviations

ATARS	Advanced Tactical Air Reconnaissance System
DOD	Department of Defense
GAO	General Accounting Office
JSIPS	Joint Service Imagery Processing System
MR-UAV	Medium Range Unmanned Aerial Vehicle
OSD	Office of the Secretary of Defense

Management of the Joint Services Imagery Processing System

Until the Office of the Secretary of Defense (OSD) initiated the Joint Service Imagery Processing System (JSIPS) program in 1986, the Army, the Navy, and the Marine Corps had spent over \$100 million to develop service-unique imagery systems. The Defense Department's objectives in consolidating these programs were to centralize program management and reduce overall development and life-cycle costs. The Air Force was designated the executive agent, and representatives of the three services agreed in a memorandum to share the nonrecurring costs of commonly developed JSIPS equipment.

In August 1987, the Air Force awarded a firm, fixed-price full-scale development contract that required delivery by fiscal year 1990 of a JSIPS unit for each of the three participating services. The contract was valued at \$131.5 million for the three development models and included priced options for 37 units totaling about \$709 million.

Unstable Funding Resulted in Restructuring of Contract

Funding instability has resulted in changes to the development cost, schedule, and projected production costs of JSIPS since the original contract was awarded. The services have not provided funds to the JSIPS program office as agreed. The funding agreement among the various services is not binding, and in spite of the importance of JSIPS, the JSIPS program manager has generally been unsuccessful in persuading the services to meet their commitments.

According to Department of Defense (DOD) officials, JSIPS is reviewed along with other programs as part of the DOD Planning, Programming, and Budgeting System. This procedure results in an annual reexamination of prior funding decisions by each service to reflect current force structure and national security objectives within available resources. DOD said that the individual services base funding decisions on service requirements and JSIPS must compete with other related and non-related systems for funding. Service funding decisions are then reviewed by the Joint Chiefs of Staff and the Office of the Secretary of Defense to ensure stable and adequate funding for JSIPS.

The JSIPS program manager said as of July 1988, he had identified a program funding shortfall of about \$38 million. Army officials told us that they did not follow through on their commitment because the Army did not have any funds available in August 1987 to support the new JSIPS program—a program that OSD had directed the Army to join. These officials said the Army did not ask Congress for authority to reprogram

funds for JSIPS because the Army wanted to fund other higher priority programs.

Marine Corps officials said that they withdrew funds from JSIPS because the funds could not be expended in fiscal year 1987. These officials said Navy policy requires that unexpended monies be withdrawn at the end of the fiscal year in which they are appropriated. Withdrawn funds are then made available for reprogramming to other Navy or Marine Corps programs. According to Marine Corps officials, the Marine Corps did not restore the funds to the JSIPS program in the next fiscal year because the Marine Corps had programs with higher funding priorities.

An Air Force official said Air Force actions to provide \$17 million more than its share and other attempts by the JSIPS program manager to work around the shortfall did not generate sufficient funds to resolve the funding dilemma. Thus, the program manager advised the contractor in early 1989 that the program did not have adequate funding to meet its full fiscal year 1989 obligations.

To forestall the programmatic consequences of a funding shortfall, the program manager, with OSD concurrence, acted to restructure the development contract. Although the restructured contract, signed in September 1989, resolved the funding deficit for fiscal years 1989 and 1990, it led to an overall increase in development costs and had other undesirable effects. The contract restructuring increased development costs by nearly \$55 million over the original contract price—from \$131.5 million to \$186.5 million. In addition, it reduced from three to two the number of JSIPS units to be delivered under full-scale development, delayed the planned delivery of the second JSIPS unit by 18 months, and voided the negotiated prices of production options in the original contract.

Notwithstanding this extensive contract restructuring, the JSIPS program continues to face funding instability. During our review, the JSIPS Program Office estimates for fiscal year 1991 indicated a \$4.8 million shortfall that the services had not committed to fund. According to an OSD official, subsequent to our review the Air Force shifted funds from another program to cover this deficit. The Secretary of Defense has not approved a single joint funding plan for JSIPS.

According to OSD and Air Force officials, the Air Force and Marine Corps now plan an initial low-rate production decision in December 1991 for

JSIPS units configured to receive and process imagery from national systems;¹ a full-scale production decision is planned for June 1992 on JSIPS units configured to receive and process tactical imagery. According to an Army official, the Army planned to purchase a second engineering development model in fiscal year 1993 or 1994, using research and development funds; the first production unit will be bought in fiscal year 1995.

No Assurance That JSIPS Can Support Joint Operations

DOD policy and procedures require preparation of a mission needs/requirements document, a concept of operations plan, and a test plan before full-scale development begins. These documents provide essential information to system developers and the test community on why the system is needed, how it will operate, and what performance measurements will be used to develop and test the system. This information is particularly important in guiding development efforts involving a highly complex and technically challenging joint program like JSIPS.

The JSIPS program has neither a jointly approved requirements document nor a jointly approved concept of operations plan. An Air Force official said that in December 1990, the Air Force Tactical Air Command issued a joint statement of operational requirements and that the document had been prepared with input from the other two participating services. The official acknowledged that the Command did not obtain formal approval from the other services, and the document was therefore not binding. Also, the document was issued about 3 years after the development contract was signed. In addition, a test and evaluation master plan developed by the services also has not been approved by DOD development and operational test organizations.

OSD officials said these documents were not prepared because OSD intended that JSIPS be only a joint engineering development program, as opposed to a joint program with a single set of requirements, a single concept of operations, and a standard set of equipment. One OSD official told us that the individual services were reluctant to participate in a joint program and might leave the JSIPS program if joint requirements were emphasized too much. Thus, after more than 3 years into full-scale development, the JSIPS program continues to be guided by service-unique requirements rather than joint requirements. This has led to the development of JSIPS equipment designed to meet service-specific needs instead of joint operational needs.

¹ Details on national systems are classified.

Under the Goldwater-Nichols DOD Reorganization Act and DOD policy, theater commanders in chief are responsible for executing theater war-fighting plans, to include joint operations, in their assigned geographical areas. However, OSD has not obtained input from theater commanders in chief on JSIPS requirements to support joint operations. OSD officials said they accepted the services' needs to have JSIPS designed to meet their individual missions. Different service-unique JSIPS designs could lead to problems in executing joint operations. For example, recent experience in Operation Desert Shield/Storm showed that having uniquely designed service intelligence equipment can hinder joint operations.

Similar concerns were expressed by representatives of theater commanders in chief at the two commands we visited. On the basis of limited information provided to them about JSIPS, these officials noted that the individual service designs of JSIPS had different capabilities and that no one single design appeared to meet their needs for joint operations. According to these officials, having multiple sets of equipment to meet their needs would unnecessarily increase requirements for critically limited airlift and sealift resources needed to move large amounts of JSIPS equipment to the operations area. Moreover, multiple sets of equipment would add to the already large amounts of equipment in the operations area.

Our analysis shows that joint operations could be enhanced by a determination of which capabilities could be combined. Each service is buying a different set of capabilities that are tailored to meet its mission requirements. These tailored capabilities are also packaged differently; for example, the Army houses the JSIPS equipment in a 20-foot-long shelter, whereas the Air Force and Marine Corps use 10-foot-long shelters. According to the JSIPS contractor and program office, the different sets of capabilities in each service's design are subsets of a total set of capabilities, consisting of both hardware and software, already designed or built in what is called an "objective" system. Contractor and program officials told us that a major redesign effort should not be necessary to combine the capabilities of the current service-unique systems. How these combined capabilities are packaged into 10- or 20-foot-long shelters can be determined separately. We did not evaluate the cost or technical feasibility of this option.

Services Have Not Sufficiently Coordinated JSIPS and Other Imagery Programs

Major design and program schedule issues among the JSIPS, the Advanced Tactical Air Reconnaissance System (ATARS), the Medium Range Unmanned Aerial Vehicle (UAV) programs, and various manned aircraft programs have not been resolved because the services responsible for their development have not adequately coordinated efforts on these programs.

A major tactical sensor suite that will feed JSIPS is ATARS, a joint Air Force, Navy, and Marine Corps program currently being developed for use on unmanned and manned aircraft. The Air Force is the executive agent for the ATARS program. Manned platforms for ATARS will include the F-16 and F/A-18 aircraft, which are already fielded and are managed by separate Air Force and Navy program offices. Development work is still required to integrate the ATARS sensor onto the manned aircraft platforms and test its performance on each aircraft. The Medium-Range UAV, which is being developed jointly by the Navy and Air Force and managed by the Navy, will also carry the ATARS sensor.

Thus, on the tactical side, JSIPS, ATARS, the Medium-Range UAV, and the various manned aircraft integration efforts are inextricably linked in providing future imagery support to the battlefield commander. Together, the JSIPS, ATARS, and Medium-Range UAV programs represent a planned investment of about \$2.5 billion in development and procurement costs.

DOD development and operational test officials and service test officials strongly supported development, testing, and production of JSIPS, ATARS, and Medium-Range UAV as a single system. These officials were concerned that a joint test plan and production schedule had not been prepared and a central test organization with adequate authority had not been established to direct joint testing. According to these officials, a joint plan and schedule had not been developed and approved that would be binding on individual services and would therefore prevent the uncoordinated fielding of mutually supporting systems. Air Force officials told us that officials from the various programs had agreed to better coordinate the schedules and production decisions of these programs. An OSD official said, however, that these agreements were not binding upon the individual services.

The services have also not adequately coordinated with each other on the JSIPS and ATARS program to resolve design differences. For example, the U.S. Army requires certain targeting information from imagery processed by JSIPS. Air Force officials said, however, that the Air Force

did not require the same targeting accuracy from their JSIPS and for that reason the Air Force had not included these design features in the combined Air Force-Marine Corps full-scale development model JSIPS.

Agreement also has not been reached on ways to prevent more than one aircraft from attempting to use the JSIPS data link simultaneously; thus, processing of high-priority imagery could be delayed if a data link were not available to aircraft with this imagery. According to DOD and Air Force officials, several possible technical and procedural solutions are being considered to solve this problem. For example, one solution is to add an automated queuing capability—the capability to sequentially schedule the reception of ATARS imagery from multiple airborne platforms. The ATARS design must therefore be compatible with the JSIPS design.

JSIPS Lacks Adequate Management Oversight

JSIPS has not been designated a major acquisition program and has not been subject to external audits and inspections. This has restricted the flow of detailed, independent information to the Defense Acquisition Executive and other top-level DOD officials. Such information, essential for effectively overseeing a program as technically complex as JSIPS, could have alerted these officials to problems in the program. Although the Defense Acquisition Executive has taken measures to strengthen his oversight of JSIPS, there is no certainty under the current management structure that these measures will be adequate to address the problems with the program. Prospects for addressing these problems could be enhanced if JSIPS was designated a major acquisition program subject to review by the Defense Acquisition Board.

Top-Level DOD Management Has Not Received Detailed, Independent Information on JSIPS

Top-level DOD management has not received the information necessary to properly manage the JSIPS program. Officials in OSD and the office of the Defense Acquisition Executive said that the JSIPS, ATARS, and Medium-Range UAV programs had been discussed with top-level management but that top-level DOD acquisition managers had been regularly briefed in detail only on ATARS. These briefings were based on issues raised in quarterly progress reports.²

²These Defense Acquisition Summary reports are designed to alert the Under Secretary of Defense for Acquisition and senior DOD executives to potential and actual significant problems in major defense acquisition programs.

Although ATARS has received some top-level management attention, the ATARS program office progress report for January 1991 showed that current major testing issues affecting the operation of ATARS with JSIPS, Medium-Range UAVs, and other platforms were not discussed. For example, service and DOD test officials told us in November and December 1990 that they were concerned about the lack of adequate plans to identify the causes of problems arising during joint testing of ATARS, the data link from ATARS to JSIPS, and JSIPS. According to these officials, developing appropriate corrections to these problems will be difficult because of inadequate test plans. The ATARS program office knew about this problem in September 1990 but did not identify it in the January 1991 progress report.

The Air Force has also exempted JSIPS from certain normal reporting requirements and from external inspections and audits except as approved by the Secretary of the Air Force. According to program officials, our audit is the first external inspection or audit since the program started in 1986. Thus, DOD top management has not received independent reports on (1) changes to the JSIPS cost, schedule, and performance figures and causes of problems that led to the contract restructuring or (2) the adequacy of the steps taken to prevent future cost, schedule, and performance problems through program funding stabilization.

**Efforts to Strengthen
Oversight Provide No
Assurance That JSIPS
Problems Will Be
Addressed**

OSD officials said the Defense Acquisition Executive became concerned that he lacked adequate information about the relationship between ATARS and other imagery-related programs. These officials said that he directed OSD to establish a Tactical Imagery Review Group to more thoroughly review ATARS, JSIPS, the Medium-Range UAV, and associated data links and aircraft platforms.

Acting on information from this group, the Defense Acquisition Executive directed OSD in January 1991 to develop a multiprogram baseline for the entire tactical imagery effort and to submit quarterly updates comparing program progress against thresholds in the baseline. The baseline, not yet defined, may not provide an adequate mechanism for managing JSIPS and the related programs unless it is comparable to DOD standard baseline format. A standard DOD program baseline is a formal agreement in a specified form that summarizes the factors critical to the success of a program. These factors include functional specifications, costs, schedule objectives, and requirements against which the program will subsequently be evaluated.

An OSD official said he will recommend to the Defense Acquisition Executive which programs and which cost, schedule, and performance parameters should be included in the baseline. Depending on OSD's recommendations and the Defense Acquisition Executive's decisions, information provided by the baseline may not be detailed or broad enough for making critical decisions during JSIPS' development. Moreover, even if a standard baseline is provided, there is no certainty that the Defense Acquisition Executive will take the necessary steps to resolve the problems with the JSIPS program, including funding instability, lack of adequate coordination with other imagery programs, and inadequate consideration of joint operations.

**Defense Acquisition Board
Review Provides
Opportunity to Address
Problems**

Designation of JSIPS as a major acquisition program subject to review by the Defense Acquisition Board would enhance prospects that top-level DOD management would receive adequate data about the JSIPS program and take appropriate action to address the existing problems. The Board is chaired by the Defense Acquisition Executive and is the primary forum used by DOD to resolve issues and provide programmatic guidance to individual programs.

Major programs subject to Board review must have a baseline that represents agreements between program acquisition officials and the Defense Acquisition Executive on functional specifications, cost, schedule, and requirements. Except as modified during the DOD planning, programming, and budgeting cycle, the baseline for major programs may not be modified without prior approval of the Defense Acquisition Executive. For these reasons, if JSIPS was accorded major program status with Board review, future JSIPS funding instability and the potential resulting cost increases, schedule delays, and requirements changes would more likely be adequately addressed.

DOD policy and procedures also state that a major acquisition program may not start unless sufficient resources are or can be programmed to support projected development, testing, production, fielding, and support requirements. In addition, a Board review of JSIPS would require both an assessment of program affordability and the preparation of an independent cost analysis to validate program cost estimates. DOD stated that the program office has begun developing an independent cost estimate to form a basis for production contract negotiations. However, DOD did not stipulate that the results of the cost estimate would be submitted to the Defense Acquisition Executive.

Board review of the JSIPS program would also ensure an opportunity to address the capability of JSIPS to support joint operations, which is not reviewed by the Defense Acquisition Executive under service-managed programs. The Vice Chairman of the Joint Chiefs of Staff is also the Vice Chairman of the Defense Acquisition Board and serves as the spokesman for the theater commanders in chief on acquisition and requirements matters. The Vice Chairman provides advice and assistance concerning military requirements and priorities and the feasibility of joint solutions to individual service requirements. A Joint Chiefs of Staff official said that JSIPS had not been considered in terms of the war-fighting requirements of the theater commanders in chief because it had not been designated a major program. Therefore, unless JSIPS is accorded major program status, the theater commanders in chief have no formal mechanism to provide their input during the requirements determination process. A DOD official said that representatives of the theater commanders in chief were convened in May 1991 to obtain their views on what capabilities should be included in JSIPS. He said an issue summary is being developed based on this conference and will be circulated to the commanders in chief. However, DOD provides no mechanism to bring these views to the attention of the Defense Acquisition Executive or to include them in developing a joint requirements document.

Finally, a Board review of JSIPS would provide a better opportunity to coordinate decisions on the testing and production the ATARS and Medium-Range UAV programs. DOD said a joint test and evaluation master plan for all related reconnaissance systems would be prepared and would be under OSD control. However, OSD did not state that it would submit the plan for Board review. If JSIPS were subject to Board oversight, the program would be reviewed during preliminary meetings by various subcommittees of the Board; these meetings are normally held to develop recommendations for Board consideration on significant program issues, such as testing and the transition from development to production. In addition, a primary consideration in Board deliberations on production decisions is the results of completed operational tests and evaluations to ensure readiness of the system for production.

JSIPS Meets Criteria for Designation as a Major Program

According to DOD and Joint Chiefs of Staff officials, the JSIPS program does not meet the minimum level of funding required (in constant 1980 dollars) to be a major program—\$200 million for research, development, test, and evaluation or \$1 billion for total production costs. However, program office data showed that as of May 1990, the cost for research, development, test, and evaluation of the JSIPS program was estimated to

Appendix I
Management of the Joint Services Imagery
Processing System

be \$205 million. When placed in context with the interrelated programs of ATARS and the Medium-Altitude UAV, JSIPS is clearly the centerpiece of the total tactical imagery system, estimated to cost about \$2.5 billion. DOD officials emphasized that these estimates could change because of new affordability assessments and budget reviews.

JSIPS also meets other criteria the Secretary of Defense uses, at his discretion, to designate major programs. For example, JSIPS (1) has been described by DOD as urgently needed, (2) has been recognized as presenting development risks from the start of the program, (3) is jointly funded, and (4) has substantial congressional interest.

Comments From the Department of Defense



COMMAND, CONTROL,
COMMUNICATIONS
AND
INTELLIGENCE

ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301-3040

May 10, 1991

Mr. Frank C. Conahan
Assistant Comptroller General
National Security and International
Affairs Division
General Accounting Office
Washington, DC 20548

Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "DEFENSE MANAGEMENT: Stronger Oversight of Joint Service Imagery Processing System Needed," dated April 10, 1991 (GAO Code 395124/OSD Case 8656).

The DoD concurs with several GAO findings, and the specific recommendation that the Secretary of Defense should ensure that the requirements of the Commanders-in-Chief for joint operations are adequately considered in Joint Service Imagery Processing System development and acquisition decisions. The DoD also concurs with the recommendation that the Secretary of Defense ensure that the Joint Service Imagery Processing System and related programs are planned and coordinated adequately to ensure the combined systems are tested fully and available concurrently. The Office of the Secretary of Defense has established mechanisms to ensure those concerns are addressed.

The DoD does not, however, concur that the Secretary of Defense should designate the Joint Service Imagery Processing System a major DoD acquisition program. The recommendation is unnecessary because the DoD already has a mechanism in place to ensure that top-level DoD management is informed of problems associated with the Joint Service Imagery Processing System and related programs.

Detailed comments on the report findings and recommendations are provided in the enclosure. Thank you for the opportunity to review and to comment on the draft report.

Sincerely,

Duane P. Andrews

Enclosure

GAO DRAFT REPORT - DATED APRIL 4, 1991
(GAO CODE 395124) OSD CASE 8656

**"DEFENSE MANAGEMENT: STRONGER OVERSIGHT OF JOINT SERVICE
IMAGERY PROCESSING SYSTEM NEEDED"**

DEPARTMENT OF DEFENSE COMMENTS

* * * * *

FINDINGS

- **FINDING A: Joint Service Imagery Processing System.** The GAO reported that the Joint Service Imagery Processing System is a deployable, ground-based imagery receiving and processing system that collects, transmits, receives, processes, and disseminates pictures and reports to battlefield commanders--which will be at the heart of a complex and much larger system. The GAO found that imagery sensors will collect data and transmit it to the Joint Service Imagery Processing System, where it will be received, recorded, and processed--including analysis by military personnel, who will forward pictures and reports to users. The GAO noted that, according to officials in the Office of the Secretary of Defense, in 1986 the Joint Service Imagery Processing System was instituted to consolidate separate Army, Air Force, and Marine Corps imagery programs--on which the Services had spent \$100 million. The GAO found that the three Services signed a nonbinding memorandum agreeing to share all nonrecurring costs equally for commonly developed Joint Service Imagery Processing System items, with the Air Force designated as executive agent. The GAO also found that the Air Force and Marine Corps plan an initial low-rate production decision in December 1991; however, the Army is still reviewing budget and program priorities and had not established such a date. (pp. 1-3/GAO Draft Report)

DoD RESPONSE: Partially concur. The Army plans to buy its second system in FY 1993-1994 and its third system in FY 1995.

- **FINDING B: Cost, Schedule, and Performance Estimates Have Changed Significantly.** The GAO reported that the Joint Service Imagery Processing System program manager generally has been unsuccessful in persuading the Services to meet funding commitments, and identified a funding shortfall of \$38 million by July 1988. The GAO reported that, according to Army officials, the Army did not request reprogramming of funds into the program because it wanted to fund other higher priority programs. Likewise, the GAO found that the Marine Corps, after withdrawing funds that could not be

Enclosure

Now on pp. 2, 9.

See comment 1.

expended in FY 1987, did not restore those funds in the next fiscal year because of higher funding priorities. The GAO found that the program manager, with the concurrence of the Office of the Secretary of Defense, restructured the development contract--which, among other things, increased development costs from \$131.5 million to \$186.5 million and reduced the number of Joint Service Imagery Processing System units to be delivered in full scale development from three to two. The GAO found that, notwithstanding the extensive contract restructuring efforts, the Joint Service Imagery Processing System continues to face funding problems--with a \$4.8 million shortfall in FY 1991 and FY 1992 and no joint funding plan approved by the Office of the Secretary of Defense to cover future procurement. (pp. 37/ GAO Draft Report)

Now on pp. 2, 9-11.

See comment 2.

DoD RESPONSE: Partially concur. There is no \$4.8 million shortfall for the Joint Service Imagery Processing System in FY 1991 and FY 1992. The program is executable with the available FY 1991 funds and budgeted FY 1992 funds. The Office of the Secretary of Defense approved joint funding plan for the Joint Service Imagery Processing System procurement is reflected in the President's budget.

See comment 3.

As noted, the Services signed a Memorandum of Agreement that stipulated Service funding responsibilities. However, as with all other DoD programs in development and acquisition, the issue of priority and affordability have to be addressed during each budget cycle, in this case by three Services. That is necessitated by changes in the threat and in projected funding levels. The staff of the Office of the Secretary of Defense reviews the Service and Defense Agency program and budget submissions and utilizes forums such as the Tactical Imagery Review Group and the standard program and budget decision processes to ensure stable and adequate funding for the Joint Service Imagery Processing System.

See comment 4.

- **FINDING C: No Assurance That the Joint Service Imagery Processing System Can Support Joint Operations.** The GAO reported that, before full-scale development begins, DoD regulations require preparation of (1) a requirements document, (2) a concept of operations plan, and (3) a test plan. The GAO found that there is no jointly approved requirements document. The GAO also found that, although the Air Force issued a joint statement of operations requirements in December 1990, it was done without obtaining formal approval from the other Services. Finally, the GAO reported that officials in the Office of the Secretary of Defense maintained that the cited documents were not prepared because it was intended that the Joint Service Imagery Processing System be only a joint engineering development effort and not a joint program with a single set of requirements and a single concept of

operations. The GAO concluded that, the program continues to be guided by Service-unique requirements rather than joint requirements--leading to equipment that meets Service-specific needs rather than joint operational needs. The GAO further concluded that the Office of the Secretary of Defense has not implemented congressional guidance or DoD regulations that require input from theater Commanders-in-Chief on Joint Service Imagery Processing system requirements to support joint operations. In addition, the GAO concluded that the different Service-unique Joint Service Imagery Processing System designs could lead to problems in executing joint operations. (The GAO noted that similar concerns were expressed by representatives of two commands that the GAO visited.) The GAO observed that the Joint Service Imagery Processing System contractor and the program office claimed the different sets of capabilities in each Service are subsets of a total set of capabilities; therefore, a major redesign effort would not be required to combine the capabilities of the current Service-unique systems. The GAO concluded, however, that joint operations could be enhanced by a review to determine which capabilities can be combined. (p. 4, pp. 7-10/GAO Draft Report)

Now on pp. 3, 11-13.

DoD RESPONSE: Partially concur. The DoD does not agree with how the GAO has characterized the systems. The Advanced Tactical Airborne Reconnaissance System and the Joint Service Imagery Processing System programs respond to the mission needs of the Services for imagery capabilities. Their concepts of operation and the functionality of their systems are sufficiently similar to support the joint development of a modular system that can be tailored in configurations to meet the unique Service operational concepts and constraints. This also allows the Services the flexibility to deploy all or part of their systems, as required, to meet specific contingency needs. And, although the contractors may be correct that a major redesign effort might not be required to combine the capabilities of different configurations, a "single design" is neither required nor desired.

See comment 5.

For example, the operational constraints in size and weight for a Marine Corps Joint Service Imagery Processing System or a Navy Joint Service Imagery Processing System mandate a configuration that is different than would be found in an Air Force system supporting a Tactical Air Command Center. As a result, Joint Service Imagery Processing Systems tailored for individual Services do have some differences, both physical and functional, that potentially may constrain their flexibility in joint Service operations. Although configurations may differ, a tactical Joint Service Imagery Processing System, whether it is Marine Corps, Navy, or Air Force can receive, process, and exploit imagery from all Advanced Tactical Airborne Reconnaissance

System-equipped tactical platforms. Furthermore, the Army Joint Service Imagery Processing System configuration could accommodate a Tactical Input Segment (to receive, process and exploit Advanced Tactical Airborne Reconnaissance System input), if desired or required.

The DoD does, however, agree that some of these constraints may be of concern to the Commanders-in-Chief. For that reason, the Joint Chiefs of Staff is sponsoring a two-day review of tactical imagery systems in May 1991. During that review, representatives of the Commanders-in-Chief will be briefed on all aspects of the Advanced Tactical Airborne Reconnaissance System and the Joint Service Imagery Processing System programs, as well as other tactical reconnaissance programs. Constraints inherent to Service unique configurations will be a focus of the briefings. Changes to the Joint Service Imagery Processing System configurations (required by the Commanders-in-Chief as a result of the review) will be forwarded via the Joint Chiefs of Staff to the Air Force for action. Although the requirements of theater Commanders-in-Chief are defined and documented through their respective component commanders, whose requirements support the Unified and Specified commands, the Joint Chiefs of Staff sponsored review will assure the Unified and Specified commands are fully informed.

- FINDING D: Services have Not Sufficiently Coordinated the Joint Service Imagery Processing System and Other Imagery Programs. The GAO reported that major design and program schedule issues among the Joint Service Imagery Processing System, the Advanced Tactical Air Reconnaissance System, and the Medium Range Unmanned Aerial Vehicle programs have not been resolved--because the Services responsible for their development have not accomplished adequate coordination on those programs. The GAO observed that, on the tactical side, the Joint Service Imagery Processing System, the Advanced Tactical Air Reconnaissance System, and the Medium Range Unmanned Aerial Vehicle, and the various manned aircraft integration efforts are inextricably linked in providing future imagery support to the battlefield commander. The GAO found that, together, those programs present an investment of about \$3.4 billion, not including development costs to integrate the Advanced Tactical Air Reconnaissance System payload into the various manned aircraft. The GAO observed that DoD development and operations test officials and Service test officials strongly supported development testing, and production of the Joint Service Imagery Processing System, the Advanced Tactical Air Reconnaissance System, and the Medium Range Unmanned Aerial Vehicle programs as a single system--and were concerned that a joint test plan had not been prepared and an adequate joint test organization established. The

See comment 6.

GAO also noted that, according to those test officials, the Office of the Secretary of Defense had not developed and approved an integrated test and production schedule to prevent uncoordinated fielding of the systems. The GAO reported that, subsequently, Air Force officials stated that better coordination had been agreed to by officials from the various programs.

The GAO also found that better coordination is also needed to resolve design differences between the Joint Service Imagery Processing System and Advanced Tactical Air Reconnaissance System programs. As an example, the GAO cited the Marine Corps requirement for certain targeting information from the Advanced Tactical Air Reconnaissance System processed by the Joint Service Imagery Processing System, which the Air Force did not require and had not included in the design of those programs. In addition, the GAO found that agreement is needed among the Air Force, the Navy, and the Marine Corps on ways to prevent more than one aircraft from attempting to use the Joint Service Imagery Processing System data link simultaneously--which requires the Advanced Tactical Air Reconnaissance System to be compatible with the Joint Service Imagery Processing System. The GAO concluded that the design, development, test plans, and production schedules for the cited systems have not been coordinated effectively to ensure that, once fielded, all systems will work together as intended. (p. 4, pp.10-13/GAO Draft Report)

Now on pp. 3, 13-14.

DoD RESPONSE: Partially concur. Design and program schedule issues among the Joint Service Imagery Processing System, the Advanced Tactical Reconnaissance System, and the Medium Range Unmanned Aerial Vehicle are of prime concern to all involved. Although sometimes difficult to resolve, these issues are being addressed by all the Services and Defense Agencies as well as by the Office of the Secretary of Defense to ensure that there are no disconnects between these developmental programs. A Test Plan Working Group and an Interface Control Working Group have been ongoing to provide necessary insight and to ensure test plans are coordinated effectively. A Test and Evaluation Master Plan for all related reconnaissance systems is currently being staffed by the Services for subsequent Office of the Secretary of Defense approval. The Test and Evaluation Master Plan will subsequently come under Office of the Secretary of Defense control to ensure that any/all changes or modifications are fully coordinated with all programs. The Interface Control Working Group, including contractor representatives, has met repeatedly to highlight and resolve potential interface problems. This group has produced periodic updates to the Interface Control Document and to appropriate specifications governing the respective contractor designs.

See comment 7.

See comment 8.

Interoperability between the Joint Service Imagery Processing System and the Advanced Tactical Reconnaissance System is the number one priority of both programs. The Test Plan Working Group and the Interface Control Working Group both help resolve design differences between the two programs.

See comment 9.

There appears to be some confusion on the part of the GAO, however, with respect to Service targeting requirements. The Marine Corps does not have a unique targeting accuracy requirement. The Army, however, requires more precise geodetic targeting capability in its Joint Service Imagery Processing System configuration than the other Services. Therefore, the design feature to satisfy this Army requirement (the Hardcopy Exploitation Segment--more specifically, the Analytical Photogrammetric Positioning System) is not included in the design of the Air Force/Marine Corps Full Scale Development Joint Service Imagery Processing System configuration.

In addition, the initial Joint Service Imagery Processing System Test and Evaluation Master Plan was approved by the appropriate Air Force authority in November 1987, and updated in July 1990. Although further Joint Service Imagery Processing System Operational Test and Evaluation is approximately six months away, a third iteration is currently in draft and will be available for coordination in May 1991.

See comment 10.

Lastly, a "queuing" capability, to schedule reception of Advanced Tactical Airborne Reconnaissance System imagery sequentially from multiple airborne platforms, is only one of several possible technical and procedural solutions being considered.

- FINDING E: The Joint Service Imagery Processing System Lacks Adequate Management Oversight. The GAO reported that the DoD exemption of the Joint Service Imagery Processing System from designation as a major acquisition and from external audits and inspections restricted the flow of adequate and independent information to the Defense Acquisition Executive and other top-level DoD officials. The GAO found that only the Advanced Tactical Air Reconnaissance System had been regularly briefed in detail to top-level DoD acquisition managers. The GAO observed, however, that a January 1991 report by that program office did not discuss current major testing issues of the several programs. The GAO noted that Service and DoD test officials stated that development of appropriate corrections of problems arising during testing will be difficult because of inadequate test plans. The GAO noted officials from the Office of the Secretary of Defense stated that the Defense Acquisition Executive became concerned that he lacked adequate information about the

relationship between the Advanced Tactical Air Reconnaissance System and other imagery-related programs. The GAO found that, as a result, he directed the establishment of Tactical Imagery Review Group, and the development of a multi-program baseline with quarterly updates. The GAO concluded, however, that those actions may not be sufficient to provide information of adequate detail and scope. The GAO found that information provided by the baseline may not be detailed or broad enough for making critical decisions during the development of the Joint Service Imagery Processing System.

The GAO observed that prospects for addressing the problem in the program could be enhanced if the Joint Service Imagery Processing System were designated a major acquisition program, subject to review by the Defense Acquisition Board. The GAO concluded that, as a major program, future funding instability would be more likely to be addressed. The GAO further concluded that major program status would ensure an opportunity to address the program capability to support joint operations. (The GAO pointed to a statement by a Joint Staff official that the program had not been considered by the theater Commanders-in-Chief, because it had not been designated a major program.) Finally, the GAO concluded that a Defense Acquisition board review would provide a better opportunity to coordinate testing and production decisions with the Advanced Tactical Air Reconnaissance System and the Medium Range Unmanned Aerial Vehicle programs. (p. 4, pp. 13-19/GAO Draft Report)

Now on pp. 4, 14-19.

DoD RESPONSE: Partially concur. The measures directed by the Defense Acquisition Executive, as described by the GAO, have been put in place. The DoD disagrees, however, with designating the Joint Service Imagery Processing System a major acquisition program. Recent changes to the management oversight of the Joint Service Imagery Processing System program are sufficient and responsive. Although not required to do so, the Joint Service Imagery Processing System Program Office is now using the major program baseline format in accordance with DoD Instruction 5000.1, 5000.2, and 5000.2M. Joint Service Imagery Processing System costs, schedule, and performance parameters will be tracked in the same manner as a major program by the designated acquisition commander, Electronic Systems Division, United States Air Force Systems Command. The program office has also begun efforts to develop an Independent Cost Estimate to assess affordability and form a basis for production contract negotiations. In addition, the Office of the Secretary of Defense has established the Tactical Imagery Review Group to provide oversight of the Joint Service Imagery Processing System activity, as well as to develop a multi-program baseline for all components of the tactical imagery structure, including the Advanced Tactical Airborne Reconnaissance System, the Joint Service

Imagery Processing System, the Common Data Link, the Medium Range Unmanned Air Vehicle, the F/A-18D(RC), the F/A-18E/F, and the F-16(R). The programs are all evaluated and reported quarterly to the Defense Acquisition Executives Summary, chaired by the Under Secretary of Defense for Acquisition, and including Service Acquisition Executives and all Office of the Secretary of Defense principals and senior advisors. The Defense Acquisition Executives have full access to all information. Moreover, the Office of the Secretary of Defense briefs the Defense Acquisition Executives on problems as they arise. That process provides the Joint Service Imagery Processing System and the other programs in the aggregation of interdependent programs the visibility and oversight equivalent to that of the Defense Acquisition Board.

See comment 11.

The reorganization of Defense Intelligence approved by the Secretary of Defense on March 15, 1991, contains provisions to further strengthen the oversight of interdependent Service and agency intelligence programs such as the Joint Service Imagery Processing System and the Advanced Tactical Airborne Reconnaissance System programs. To relieve the Deputy Assistant Secretary of Defense (Intelligence) staff of the detailed program review, oversight, and coordination functions, an Intelligence Program Support Group, composed of 72 military and civilian analysts, is being established. That group will provide the additional personnel needed to strengthen the oversight of the Joint Service Imagery Processing System and the related tactical imagery programs.

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RECOMMENDATIONS

- RECOMMENDATION 1: The GAO recommended that the Secretary of Defense ensure that Joint Service Imagery Processing System program funding is adequate and stable. (pp. 19-20/GAO Draft Report)

Now on p. 5.

See comment 12.

DoD RESPONSE: Partially concur. The Services are required to assess individual program requirements as part of the DoD Planning, Programing, and Budgeting System. The Planning, Programing, and Budgeting System mandates that prior decisions routinely be re-examined and analyzed from the viewpoint of the force structure/national security objectives and the current environment (threat, economic, technological, and resource availability), and the decisions either reaffirmed or modified, as necessary. That process ensures only the most critical programs are continued. The current high importance of the Joint Service Imagery Processing System notwithstanding, funding for future procurement of Joint Service Imagery Processing

System systems to meet Service requirements is the responsibility of the individual Services and must compete with other related and non-related systems for funding. The Joint Chiefs of Staff and the Office of the Secretary of Defense review the Service and Defense Agency programs and budget submissions and use the program and budget issue process to ensure stable and adequate funding for the Joint Service Imagery Processing System program.

- **RECOMMENDATION 2:** The GAO recommended that the Secretary of Defense ensure that requirements of the Commanders-in-Chief for joint operations are adequately considered in Joint Service Imagery Processing System development and acquisition decisions. (pp. 19-20/GAO Draft Report)

Now on p. 5.

See comment 6.

DoD RESPONSE: Concur. Theater Commanders-in-Chief have requirements in terms of intelligence needs. Although the requirements of theater Commanders-in-Chief are defined and documented through their respective component commanders, whose requirements support those of the Unified and Specified commands, input from Joint Unified and Specified commands should also be obtained in order to ensure adequate requirement coordination. In May 1991, the Unified and Specified commands will be invited to participate in a comprehensive review of all aspects of the Joint Service Imagery Processing System program. That review will afford them the opportunity to understand (1) operational concepts, (2) fielding plans, (3) Service configurations, and (4) technical details of the system.

- **RECOMMENDATION 3:** The GAO recommended that the Secretary of Defense ensure that the Joint Service Imagery Processing System and interrelated programs are planned and coordinated adequately to ensure the combined systems are tested fully and available concurrently. (pp. 19-20/GAO Draft Report)

Now on p. 5.

See comment 7.

See comment 8.

DoD RESPONSE: Concur. Design and program schedule issues among the Joint Service Imagery Processing System, the Advanced Tactical Reconnaissance System, and the Medium Range Unmanned Aerial Vehicle are of prime concern to all involved. Although sometimes difficult to resolve, the issues are being addressed by all the Services, as well as by the Office of the Secretary of Defense, to ensure that there are no disconnects between those developmental programs. A Test Plan Working Group and an Interface Control Working Group have been formed to provide necessary insight among programs and to ensure test plans are coordinated. A Test and Evaluation Master Plan for all related reconnaissance systems is currently being staffed by the Services for subsequent Office of the Secretary of Defense approval. The Test and Evaluation Master Plan

subsequently will come under Office of the Secretary of Defense configuration control to ensure that any/all changes or modifications are fully coordinated with all programs.

- **RECOMMENDATION 4:** The GAO recommended that the Secretary of Defense designate the Joint Service Imagery Processing System as a major DoD acquisition program, subject to Defense Acquisition Board review. (The GAO observed that such designation would be consistent with DoD regulations and would allow top-level DoD management to correct funding, system requirements, and coordination problems before production decisions are made.)
(p. 20/GAO Draft Report)

Now on p. 5.

See comment 13.

DoD RESPONSE: Nonconcur. The DoD disagrees with designating Joint Service Imagery Processing System a major acquisition program. Changes already made to the management oversight of the Joint Service Imagery Processing System program and the aggregation of interdependent tactical imagery programs are sufficient and responsive to the GAO concerns. The Joint Service Imagery Processing System Program Office is using the major program baseline format in accordance with DoD Instruction 5000.1, 5000.2, and 5000.2M. Joint Service Imagery Processing System costs, schedule, and performance parameters are being tracked in the same manner as a major program by the designated acquisition commander, Electronic Systems Division, United States Air Force Systems Command. The program office is developing an Independent Cost Estimate to form a basis for production contract negotiations. In addition, the Office of the Secretary of Defense has established the Tactical Imagery Review Group to provide oversight of the Joint Service Imagery Processing System activity, as well as to develop a multi-program baseline for all tactical imagery programs. That group also is responsible for developing and maintaining an "umbrella" program baseline for the Defense Acquisition Executives to assure the Joint Service Imagery Processing System, the Advanced Tactical Airborne Reconnaissance System, the Common Data Link, the F/A-18D(RC), the F/A-18E/F, the F-16(R), and the Medium Range Unmanned Air Vehicle programs are coordinated fully during development and testing.

The status and assessments of cost, schedule, and technical performance for the Joint Service Imagery Processing System and the other programs are reported to the Under Secretary of Defense for Acquisition on a quarterly basis. Problems and issues are presented to the Office of the Secretary of Defense and Service acquisition executives at the quarterly Defense Acquisition Executives Summary sessions.

The following are GAO's Comments on the Defense Department's letter dated May 10, 1991.

GAO Comments

1. The report has been changed to reflect this new information.
2. DOD and Air Force officials told us that the Air Force unilaterally provided funds to cover the multi-service \$4.8 million program funding deficit identified in our draft report. In our opinion, the Air Force action to cover a current deficit reenforces our position that JSIPS continues to face inadequate and unstable funding problems.
3. The President's budget includes funds for JSIPS from multiple funding sources. DOD's response also notes that the issue of priority and affordability have to be addressed during each budget cycle by the three services. Thus, JSIPS does not have a single, comprehensive joint spending plan. Also see comments 4 and 5.
4. These procedures did not prevent prior program funding deficits. In addition, effectiveness of the Tactical Imagery Review Group is not assured: this group was in existence when the Air Force recently covered the \$4.8 million deficit from its own funds.
5. DOD addresses the services' need for flexibility in configuring their systems, especially in terms of size and weight. We agree that the Marine Corps has different needs, such as the capability to transport a system over a beach, and thus could require a different configuration than the Air Force might require at a Tactical Air Command Center. Our report addressed the capabilities of JSIPS. We did not suggest that only one configuration was possible or desirable to house these capabilities. In fact, we specifically state, "how these combined capabilities are packaged into 10- or 20- foot long shelters can be determined separately."
6. A DOD official said the proposed conference was held, and an issue summary is being prepared for circulation to the commanders in chiefs. We believe the review sponsored by the Joint Chiefs of Staff will ensure that the commanders in chief are brought into the requirements process. However, DOD also notes that as with all other DOD programs in development and acquisition, issues of priority and affordability have to be addressed during each budget cycle by the three services, which retain the responsibility to decide among competing requirements. Thus, the Air Force and other services are left to decide which requirements of the commanders in chief they will fund.

7. A Test and Evaluation Master Plan, which is approved and controlled by the Office of the Secretary of Defense, provides a mechanism to develop adequate testing of all related reconnaissance programs. DOD, however, did not address a concern of test officials—the lack of an organization to implement approved test plans.

8. We agree that the services and defense agencies have made strenuous efforts to coordinate decisions on the various programs. However, in spite of these efforts, output in the form of decisions and agreements was unduly delayed and/or not evident. We believe the lack of a joint manager with adequate authority and information was the major cause of prior problems in reaching timely, effective decisions and coordinated actions. None of the actions or groups mentioned by DOD address this point. The test plan working group prepares test plans but is not a decision group to resolve design issues. The Interface Control Working Group has been unable to resolve differences in a timely manner, and some differences had not been resolved by the end of our review. Both groups operate through consensus, with no authority to make binding decisions.

9. The report has been changed to reflect this information.

10. The report has been changed to show queuing as one of several possible technical and procedural solutions being considered to prevent more than one aircraft from attempting to use the JSIPS data link simultaneously.

11. Subsequent to our review, the March 15, 1991, DOD reorganization of defense intelligence created the Intelligence Program Support Group to strengthen oversight of interdependent service and agency intelligence programs such as JSIPS and ATARS. DOD said this group will include additional personnel to perform detailed program review, oversight, and coordination. However, as of May 20, 1991, staffing of the new group was not completed and the group was not in operation.

12. DOD leaves funding for JSIPS, a “joint” program, to compete with other related and non-related service-unique systems for funding. Thus, JSIPS could be inadequately funded if only one service decides that JSIPS does not have a sufficiently high priority. This deficit could occur during the remaining development phase or during production. The JSIPS program office will negotiate production costs in the upcoming production contract. These prices will be based on a given number of units. Should an individual service determine it has higher priorities than JSIPS,

it could reduce the number of units it is going to buy. This action could endanger the priced options for all services.

13. The changes DOD has made could lead to significant improvement in management oversight of JSIPS and related programs. However, despite these changes, the services continue to control JSIPS funding, requirements, and coordination procedures. For example, DOD noted that, despite the current high importance of JSIPS, funding for future procurement of JSIPS systems is the responsibility of the individual services and must compete with other related and non-related systems. Control by each service of its own funding priorities and system requirements led to the problems identified in our report.

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